

REMARKS/ARGUMENTS

The claims are 1-6 and 9-20. Claim 1 has been amended to better define the invention and to incorporate the subject matter of claim 8. Accordingly, claim 8 has been canceled. Support for the claims may be found, *inter alia*, in the disclosure at pages 7-8. Reconsideration is expressly requested.

Claims 1-6, 8-9, 14, 16 and 18-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kilabarda et al. U.S. Patent No. 6,911,616* in view of *Nishimura JP Patent No. 05192774*. The remaining claims were rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of *Kilabarda et al.* and *Nishimura*, and further in view of *Humblot U.S. Patent No. 4,481,401* (claims 10-13) or *Eckler et al. U.S. Patent No. 3,015,713* (claims 15 and 17).

In response, Applicants have amended claim 1 to better define the invention and respectfully traverse the Examiner's rejection for the following reasons.

As set forth in claim 1 as amended, Applicants' invention provides a spot welding gun for resistance welding of workpieces, including a base body, a bracket having a C-shaped configuration, and electrode holders carrying electrodes arranged on the bracket. Each electrode has a respective spacer and a respective pressure element arranged on an end of the electrode. Each respective spacer and respective pressure element is connected with the electrode so as to be movable along with the electrode in a longitudinal direction, the pressure element exerting a force on the spacer.

As recited in claim 1 as amended, a winding device including an associated strip is each provided for the protection of an associated electrode of the electrodes. Each spacer and pressure element form a respective guide for the strip wherein the strip is located in a spaced apart relationship to the electrode above the spacer and the pressure element with the spot welding gun not being closed. The spacer lifts the strip from an electrode surface or an electrode cap during or after opening of the spot welding gun on account of the pressure exerted via the pressure element. The spacer is pushed back against the pressure element during a welding procedure with the spot welding gun being

closed, so that the electrode or electrode cap will contact the strip, and a pressure or force is exerted by the spacer on the workpiece in addition to the pressure force exerted by the spot welding gun on account of the pressure element.

In this way, the process-inherent bending or deflection of the sheet metals or structural components, for example, is prevented. When using such an electrode or an electrode assembly of this type, it is ensured that the strip is not in direct contact with the electrode cap with the spot welding gun open so as to prevent the strip from rubbing against the electrode during its displacement, thus substantially increasing the service life of the electrode.

None of the cited references discloses or suggests a spot welding gun having the structure set forth in claim 1 as amended, or the benefits that are achieved by that structure. The primary reference to *Kilabarda et al.* simply describes a welding gun for resistance welding of workpieces. There is no disclosure or suggestion in *Kilabarda et al.* of an associated strip for the protection of the electrodes.

The defects and deficiencies of the primary reference to *Kilabarda et al.* are nowhere remedied by the secondary reference to *Nishimura*, which simply discloses a spot welding gun for resistance welding of workpieces using a strip for the protection of the electrodes, which strip is guided axially along the electrodes from and to the respective winding device.

Although the Examiner has taken the position that *Nishimura* discloses a winding device for one electrode arranged on a bracket mounted on a base body and another winding device for the other electrode arranged on an actuating means, it is respectfully submitted that the Examiner's position is unfounded as *Nishimura* fails to disclose or suggest a resistance welding gun in the form of a so-called c-gun in which the components of the spot welding gun have c-shaped configurations. As discussed in Applicants' disclosure, the use of strips for the protection of the electrodes in the case of a c-gun in the automated field, particularly with robots, is not possible due to the requirement of plenty of space.

Applicants' spot welding gun as set forth in claim 1, as

amended, includes a bracket having a c-shaped configuration unlike *Nishimura*. It is important that the winding device 9 follows the stroke of the actuating element 5 of the movable electrode 7 which renders a deflection or tightening of the strip 8 superfluous. The winding device 9 travels the linear longitudinal displacement path of the electrode 7 arranged on the actuating means 5. It is thus ensured that the strip 8 for the protection of the electrode 7 is kept taut because a full displacement of the winding device 9 is performed together with the electrode 7 and the distance between the winding device 9 or wind-off or a wind-up rollers 10, 11 and the electrode 7 will always remain constant.

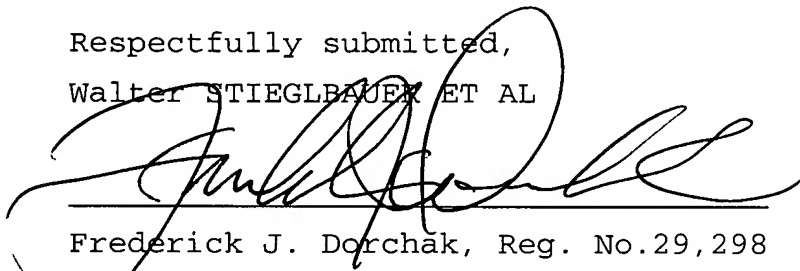
Moreover, there is no disclosure or suggestion in *Nishimura* of Applicants' spacer and pressure element arrangement as set forth in claim 1 as amended.

The remaining references to *Humblot* and *Eckler et al.* cited with respect to certain dependent claims have been considered but are believed to be no more relevant. None of these references discloses or suggests a spot welding gun having the structure set forth in Applicants' claim 1 as amended, or the benefits that are achieved by that structure.

Accordingly, it is respectfully submitted that Applicants' claim 1 as amended, together with claims 2-6 and 9-20, which depend directly or indirectly thereon, are patentable over the cited references.

In summary, claim 1 has been amended, and claim 8 has been canceled. In view of the foregoing, it is respectfully requested that the claims be allowed and that this application be passed to issue.

Respectfully submitted,
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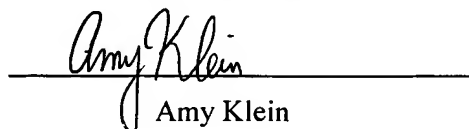
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